

A black computer monitor and a grey keyboard are shown in the background. The monitor is on the left, and the keyboard is in the center. A price tag is overlaid on the monitor.

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From the Editor

Contents

B.C. Edition • Feb. 1992



The Battle of the Operating Systems

Make the "100th Operating System." It just got back from the Pacific Rim Computers in Vancouver. Here and it is obvious that the next five years will be according to the computer industry. What are we looking at it is coming from the market start in the operating system area. The operating system is to a computer what a modern house is to the people. It is the most basic method of communicating to the computer. Without an operating system, you can't run your spreadsheet or wordprocessor.

MS-DOS Rules

Currently the best selling operating system is MS-DOS (Microsoft Disk Operating System). MS-DOS has many limitations, such as a 640 K RAM limit which programmers have to create elaborate ways to get around to run fairly modern programs, a limitation on eight characters for file names (short name of 8) complicated the names like "BUDGET991992" instead of "February '91 Budget Spreadsheet" among other things. It was a great operating system, when computers had 128 K of memory, but it is beginning to show its age.

Windows

What we see is the slowest cause of the computer being up to replace MS-DOS. Windows is often assumed to be an operating system, and it is not. The fact is, it is just a program that runs on top of MS-DOS. Windows currently looks like the "operating system" in fact, Microsoft claims to have shipped it million copies and has software developers falling over each other to produce programs for the system. Windows has limitations as any of these and is the fact that it is still an upgrade to MS-DOS. Microsoft plans to deal with these by producing an interim upgrade called Windows 3.1 and eventually no slower operating system called Windows NT which presumably will run Windows programs, but is a new operating system, not an upgrade of MS-DOS.

OS/2

IBM, long a leading purveyor of PCs, has recently split with Microsoft and is very successful Windows. IBM is producing an operating system called OS/2 Version 2.0. OS/2 and Windows NT have roots in similar code that both IBM and Microsoft have worked on. One observer claimed that IBM will actually make as much money if Microsoft sells a copy of Windows NT as they do by selling a copy of OS/2. In addition, IBM has a far wider range of operating systems, a lot with Apple Computer to mention the two examples of this company's Microsoft operating system to run on both Intel-based machines and IBM's RISC-based RISC machines.

SCO, Next and Sun

More systems are also being produced from the Unix world. SCO and other companies have been selling Unix systems that run on "UNIX boxes" - proprietary, powerful 386 and 486 computers. They're not guaranteed solid growth, but are certainly interesting. The Unix world has seen it probably as a way to generate a larger customer base for their own hardware platform.

From rumors in the area, it seems that more NEXT has been working the way with a version of an OS/2-type operating system. NextStep has turned out Unix, which is reported to be the best of the next step of programs are available now. It runs on the platform of either the new Linux computers called Linux to run or, again, on the old chips because of the time of programming NEXT has, is committed to the operating system and that is the reason. NextStep is now a company. A double event is being held by Sun International to promote its new workstation. A new copy of called NextStep will be presenting a version of the Sun OS-called Solaris that runs on 386 and 486 computers.

Good Guys, Good Future

What all this means is that in the 1990s or 2000s companies in a solid hardware relationship with the software operating system will go, because they will likely have just closed off operating systems in the same future. OS/2 will likely have a few more years, and we will see a series of systems for PC operating systems: OS/2, NextStep, Solaris, and SCO. Unix is going to be a interesting future.

Toronto Edition

Reporting in Toronto, The Computer Paper will be launching a Toronto edition of the publication. We have had extensive reports since the year for a number of the publishers from readers in Toronto and we hope that will be well received and has been in B.C., Alberta and Manitoba. This continued growth in the area will see a different readers. They will see where they are and their left. Thanks.

By the way

Karl Singh Khosla

Karl Singh Khosla
Publisher/Editor

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Apr 18	Canadian News Personal/Technical Services	Apr 18	Apr 18	Apr 18
May 18	Macintosh OS/2 Software for Macintosh	May 18	May 18	May 18

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1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

Ultimate power transfer strategies
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► **RESEARCH:** The authors used a cross-sectional design to examine the relationship between self-reported health status and perceived social support among older adults.

Figure 1



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Summary

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[illegible]

Apple's Answer

Apple's answer to the question is simple: Yes, they are. After reading the letter in the December 10 issue of *The Computer Paper*, there is virtually no design coverage in your magazine. In its average issue of one hundred pages, it has only a few pages of design coverage, most of it just a page worth of ill-quantified news. To help plug up the short, here are some ideas for possible Apple-related articles in the future:

This design is a multiplatform, multi-macrosheet computing platform. A review of available products (as in the *Apple Macintosh*, *Macintosh*, and *UNIX* compatible) and how one can go about communicating between platforms.

The new *Apple* graphics cards available for the *Apple*, which are suitable alternatives to the more costly *IBM/Apple* based configurations.

Hardware review of the new *Workbench* 1.1 operating system. (The *Apple* version of *Workbench* 1.1, *Macintosh* 1.0, *Macintosh* 1.0, and *Apple* 7.0 where they are used next).

A comparison of the *Apple* and *Apple* graphics architectures. (The *Apple* version of *Workbench* 1.1, *Macintosh* 1.0, *Macintosh* 1.0, and *Apple* 7.0 where they are used next).

Value, cost, maintenance, and maintenance performance in the *Apple*.

There are lots of ideas that only scratch the surface of the above ideas in just a few, including a series of articles by authors. *Apple* and *Apple* design. (The *Apple* version of *Workbench* 1.1, *Macintosh* 1.0, *Macintosh* 1.0, and *Apple* 7.0 where they are used next).

Steve Wang
Richmond, B.C.

The *Computer Paper* contains information on *Apple* design. For what it's worth, we have several sets of the above ideas in just a few, including a series of articles by authors. *Apple* and *Apple* design. (The *Apple* version of *Workbench* 1.1, *Macintosh* 1.0, *Macintosh* 1.0, and *Apple* 7.0 where they are used next).

Disappointed over Apple's 'two-chipset' 68k Mac IIx. An open letter to David Rice at Apple Computer

We just finished the *Mac IIx* Computer Board build at the Vancouver Trade & Convention Centre this past week. Our company, *BestTop Solutions Ltd.*, was an exhibitor at this year show. There was very well-attended and the show will surely be very successful, but there was one major problem on our part. Neither Apple Canada nor any of the Apple dealers were represented at the show. This was great disappointment to us, as well as the many Apple customers who were in attendance. As a result of the Apple dealers' many of your local customers approached our booth, confused, thinking that we were an Apple dealer. Our company is a design publishing and graphics business and we use Apple Macintosh computers systems exclusively. Many of your customers and other non-Apple users approached us asking us why we use Macintosh computers exclusively in our business. There was an much confusion as to why Apple Computers or one of the Apple dealers did not greet us with their company that month of our show was taken up asking us disappointed Apple customers. Many of these were customers had the opportunity to look at products from Apple's competitors. Of particular note was the excellent display put on by the *IBM* Canada (including *OS/2* version 2.0). I was reminded of the original *Macintosh* (some eight years ago). What was noteworthy of the *IBM* display in this year's *Mac IIx* show was the "don't be sure" approach the mysterious *IBM* logo took. *IBM* seems like the leading by poster in its advertisement about their products.

"Sure Tower system-built" approach to design business. Once again we were all reminded of a time when Apple was a small but smart company with great products and an eager to build its "family" sales approach. At this time, *IBM* was the dominant company in the microcomputer business and Apple was the upstart, a quick and simple deal was to grab market share from the giant. *OS/2*, it is a pity how success was

spoil a good thing.

In business the production of success always back and forth. The production among those *Apple* in the late '80s. If the *Mac IIx* show there is any indication the production is about to end the video very little information in the *Mac IIx* show, the biggest company show was, in *OS/2* is not only that but a deal, and in *OS/2* is the building of Apple Computer show days. I

think the communication people in the show, especially in up when they said the Apple show was a "family" show.

Many of the Apple customers who spoke to at the show said the show seems like Apple was not doing too well. The best place were in San Francisco or *Macintosh* Expo. This explanation does not match. The way we say it, Apple will be down in the ground on page 10.

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Continued from page 8
operation.

Markus Mosley-AMT Gavriel whom you'd see in "Mistaking" section.
Doug Lemons, head of the Gap Project, to make companies take initiatives that will discover new concepts. "The title alone 'Then Changed the World' will not only show the river of computing, but will also look to the future of the industry by exploring 'novel' things" as experimental technology that a 3D and interactive.

Pujakuma Streamlines for Success

Streamlining the revision and trying to put a light touch on a given computerized document, the Pujakuma D.A. Streamlines has led off their employees. The company announced the launch of a new process that they have learned from all the remaining employees in every the worldwide. "It is a major message that there are more than a million people working for these things, however the work must still exist of where most the efforts to find among themselves."

Employees of Pujakuma Canada recently announced the launch of a new process and restructuring of the local office.

According to Pujakuma's president, Robert Chen, "It is one of the existing computer realizations, which we don't expect will tell us in the future, we find it a better way to maintain a more highly efficient operation. These kinds of changes are becoming increasingly common in the computer industry."

Pujakuma is an international, Canadian-based organization, employing close to 1,000 employees worldwide. The company has regional field offices in Chicago and China, and sales/support office in Vancouver, Vancouver, Quebec City, Newborough, Denver and Hong Kong.

Heron Design Says Grippes Edges other Halfway Technology

Heron Design's Grippes Edgepoint and others that they are the first graphics design studio in Vancouver to use the Grippes Halfway desk. The Grippes improves the production quality of business images with the Halfway Halfway desk.

Developed by the Heron Design Corporation, the Grippes Halfway desk is the best of the best designs. In addition, it is especially suited to the design of half-way images. The design and high-quality images are created and open in other good reproduction.

Heron Design, along with Apple Macintosh desktop publishing system, reports savings in their design of 50% to 60% in reduced materials, expenses and other services, and saving cost. The last necessary to produce a set of final business images is drastically reduced from days to hours.
Stephen Heron will present a workshop on February 10 showing the methods used by Heron Design to produce color approximations. Contact the University of British Columbia, Centre for Continuing Education, 222-1110 for more information.

And the Winners Are...

The Computer Paper held its draw on the roof of the Pujakuma Computer Expo on January 25. To many readers and in the The Computer Paper Winner (Darius) Darius Darius was the lucky winner of the 500 Laser Printer. Some Darius came up the winner for a free ride in The Computer Paper. Dr. Darius Darius was a year's free subscription to The Computer Paper. Thank you to the thousands of readers who entered, and congratulations to the big winner.

Continued on page 11



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Continued on page 12

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PacRim Show Report

Journal of Management Inquiry 18(1)

Table 1

Similar sized numbers of following have placed numbers.

- [illegible]

Of these machines, the Canon is by far and away the most popular. The next machine has to be the CLC-300, although now discontinued. The CLC-300 also discontinued this year and has been replaced by the CLC-300+. The CLC-300 is the basic scope of all full-size plotters except.

Level 1 Edge was the first service between us and was to provide the new color laser printer, complete with a Postscript interface to a computer. They don't provide the T-shirt in the first transfer service, but do the color printing to the heat-transfer paper which you can take home and iron to your favorite fabric.

The market for "image-wear" is large. The garment allows anyone to have unique fashion for shirts with the change of their identity as a teenage boy, affluently, price \$100-\$150. If the market is measured that by one-off sales to consumers through retail

Computer applications answer for the balance. Compressants will utilize the method of still design when they require only small quantities for treatments or invasive gels. Making some papers and heat transfer paper to create larger size sheets to compete with off-the-shelf up to approximately 100gsm weight, share depending on mass rate and dry. (2)

Received: 28 January 2016; Accepted: 10 November 2016; Published: 14 November 2016

BC OnLine Field Guide

The screenshot shows the 'System' window in Windows XP. The 'System' tab is selected, displaying the following information:

- System**
 - Model: HP Pavilion 1000
 - Manufacturer: Hewlett-Packard
 - BIOS Version: F.02
 - System Type: x86-based PC
 - System Manufacturer: Hewlett-Packard
 - System Model: HP Pavilion 1000
- Hardware Resources**
 - Memory: 1.00 GB (992 MB Free)
 - Hard Disk Space: 160 GB (154 GB Free)
 - CD-ROM Drive: 1 (DVD-RW Drive)
 - Sound Card: Realtek High Definition Audio
 - Network Card: Realtek 8139C01
- Software**
 - Operating System: Microsoft Windows XP Home Edition
 - Service Pack: SP2
 - System File: C:\WINDOWS\system32\ntoskrnl.exe
 - System File: C:\WINDOWS\system32\ntoskrnl.exe
 - System File: C:\WINDOWS\system32\ntoskrnl.exe

Thanks to the newly released BC Online Retail Guide, things will be a lot easier for the more than 12,000 users of BC Online (BC Systems Corporation's electronic point-of-purchase management software).

The World Guide, which was designed and produced by Vancouver-based Clear Computer-Based Productions, helps EIR Guiding users to search for and explore records in the Land Titles, Companies, Personal Property and Rural Property Tax registers. All the main routes through the various data entry fields, the World Guide plots or helpful information on the screen, explaining what the options are each step of the way. The World Guide also generates a success or failure and list of useful messages. The World Guide is available by allowing valid input in the fields, or by selecting the menu option of "quit" at the console. It runs on any computer that is compatible and provides the user through either a console or phone.

The Pacific Rim Computer & Communications Show, held January 14-15 at the Trade & Convention Centre in Vancouver's PNE Pacific Place, featured 310 exhibitors, manufacturers, distributors and other vendors and attracted crowds of more than 10,000 people over the three-day event. Several vendors claimed that Wednesday was the busiest day and today reported being "completely sold out."

Table 1 Characteristics of the study population

there where we got some on October 24, 1999, probably (for example see) Joseph M. Smith et al. (Eds.) (1997) and introduced a new Terman's edition of *The Complete Papers*—a highly and well structured in 199,000 pages.

In addition, in the displays on the shore boat, there were many windows also used as called "telemetry windows" to watch progress of the operations in water without interference from the outside.

all the hard parties and caused the loss of
some of the leaves and gnomes. There are
some of the children.

0009-3079/96/0005-0000\$05.00/0

Remember, you looked, it was impossible not to notice this lovely woman was wearing a long earring wearing a pin with the diamond ring. I was happy to see it. I had one of the largest diamonds in the stone, and walked a small army of employees and business partners to show off the beauty of the new diamond ring. I spent some time with the new CS, and I was impressed. It appeared to

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Continued from page 19

WordPerfect

WordPerfect had what was then known as the "mouse trap" in the late 80s. Many users did it as an escape route during a presentation, and they were usually quickly installing it. The main reason was that the Microsoft Windows, although it could have been the answer WordPerfect needed, was the company's disinclination to migrate into the new platform.

Nearly, Microsoft also had a large base, but for many years, its presentation seemed locked by contrast. The company showed its own PC applications, primarily for the 386 and the 486, and for Windows 3.0. According to spokeswoman Betha Stewart, the company doesn't intend to release several new products in April.

Of course, the impact of Windows was visible throughout the show.

Many users found that at least one computer or monitor running the popular graphical user interface.

Multimedia Arrives—Really

Multimedia PCs were ready a particularly strong showing in the area of multimedia, as well as, most recently, had been a distinctly better-looking aspect of the market. Based on the exhibits, in fact, looks like enough multimedia to cover them a little in the past. In fact, it looked like the particular makers were looking a harder in the show, focusing primarily on color display, music and multimedia solutions. They were also of various kinds. Color printers and photo-copiers are clearly "hot," while high-resolution photo-copiers were scarce—arguably less of a trend than a case of makers looking what appears to be the computer market. Photo-copiers for superior to be getting ground, as are digital camera solutions.

video, sound boards, CD-ROM and other accessories of multimedia.

Philips/Magnetics was one of the only companies showing a full-blown "MPC standard" multimedia PC, but by exhibiting no other computers from different manufacturers, consumers should be able to upgrade any existing 386-based machine to MPC standards. Tony Palmer of Philips/Magnetics demonstrated several CD-ROM-based multimedia applications running on the Magnetics MPC, including Microsoft's interactive Multimedia Desktop and Show/Window's Smart Home disc. They're one of several on Commodore's employees I saw in the show. Apparently, something of a sub-trend to be looking at Commodore displays. No less than 100 Commodore computers were on show from the company held across the show.

Anything but DOS

Free-Shell computers are still scarce. I only saw one in the show. Although computers were certainly rare, it is a classic case. Apple, a company with 12.5% of the market share, apparently chose not to appear the largest computer show on the west coast. The show I saw were integrated mostly to supporting files to other than games in the Games and Software Area. The few laptops were coming from the Games area, but down by "World's" main stage, however, which produced something good transformation stages from Princeton's firm.

NOCT put on an impressive showing in a specially located space, staffed by NOCT and Advanced Technology. NOCT was located enough on the platform a considerable strength in a productivity tool. The booth was usually packed with people only visited a table of information NOCT showed. Some people visiting the machines through their pages.

Continued on page 29

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John Smith, the Spies of Earth 3D, is a body man creating seven programs at work or software to display fractal images. When released this spring the program will permit colour VGA images down to 32 is close to be downloaded to 4.75 version.

With 10,000 bulletins weekly estimated in existence, John read "not himself running the only one in the world capable of real live graphics. The new terminal program (which) proved ideal for such applications as real estate, online stores, art galleries etc. where there's no real substitute for an image."

Circle 1953 should have a demo area running in February. The rate structure for membership on the 1953 will be increasing, particularly for downloads, so \$79 now can assure you all year's full access, including what areas a third future change.

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of spreadsheet data you just placed in the workbooks, or insert automatically generated data and allow you to edit the data. These GLE and GGL tools can be embedded, however, only two Windows applications are set to support them. All you have to do is use Windows development tools such as the Windows Software Development Kit, Visual Basic or VBA, Windows which give you access to these tools. According to Microsoft's Jean Ball, Gates, the idea is that Microsoft Windows is an operating system (so you can't get it) is even in the power of Windows NT (New Technology)—a possible version of the Windows OS which replaced OS/2.

Presentation Manager and what will use anything from a portable notebook personal computer right up to a mainframe graphical workstation. "Whether it's an operating system, you write the application in it, so it is an operating system," Gates concludes. "If you get Windows out (into next year), then we have Windows NT—which is a complete operating system—mid-1993. And something in 1995 we have OS/2. Windows 4.0 and Windows 5.0 as NT will continue to OS/2, although we will offer OS/2 in a profit. But back to where all the new applications are coming in being done. The world is going to be a very Windows environment by 1992."

Bill and Phil's Excellent Spreadsheets

In 1989, as we know, that one of the major spreadsheet competitors who followed the longer into moving to Windows was Lotus Development Corp., only recently started its going on long-proposed Lotus 1-2-3 for Windows. Despite its delays, Lotus is finally developing for Windows. Microsoft's Jean Ball Gates is chairman of the corporation that represents the Microsoft's own Excel spreadsheet.

"In Lotus 1-2-3/92 in the process get us here our head," he says. "The Lotus is a product like that, it is sustainable software."

are the new drivers, where is the speed? It is in the 1-2-3/92 on moving. Along that they would ship 1-2-3/92."

The latest spreadsheet and CEO Philipe Rodin, moreover, says that (so it also not needed about Lotus 1-2-3 for Windows), or the fact that the Quantum Pro for Windows is running on at least six months after the Lotus version.

"We, on the way to the next thing, the issue is to be the last one to the first. We could have been Lotus's market, but then Lotus has a new strategy," he says. "People will buy the last (third) spreadsheet. Our indications are that competitors are waiting until they can establish the three products (1-2-3 for Windows, Microsoft Excel 3.0 and Quantum Pro for Windows) and then finally where we will stand. Quantum Pro for Windows is a very important product for us and will be important in the industry because it defines new ways to think about spreadsheets."

While spreadsheet market leader Lotus Development is keeping still with the release of Lotus 1-2-3 for Windows and for the Microsoft (this year), the company's competitors also are standing still. "That competition is not there."



Microsoft Excel 3.0

Product: Microsoft Excel for Windows
Manufacturer: Microsoft Corp., Redmond, Wash.
Features: 385 version is faster capable of creating spreadsheets that are stored in external files.
Software: Windows 3.0
Price: \$495

This is the product in fact. If Lotus is going to be the kind of market leader in the spreadsheet market that it has always been in the 1-2-3 spreadsheet market, it is going to have to break out from Excel 3.0, the reigning champion of graphical PC spreadsheets. And there is no denying that Excel is a tough opponent. Not only does it continue completely in the Windows development guidelines, but also offers more no alternative to specially easy access to Lotus 1-2-3 for Windows—with the important addition of stability in the 340 million Microsoft Excel data spreadsheets (100 files in an open spreadsheet, "save" files in them that have already been used to this, this is not a change in behavior of most spreadsheet developers. Then being said, we would also mention of Excel is expected only next year—now that it is likely to jump on the new market advantage that Lotus is able to give with 1-2-3/92 and provide Microsoft's new version with.

Wings for Windows

Product: Wings for Windows
Manufacturer: Lotus Software
Features: 385 version is faster capable of creating spreadsheets that are stored in external files.
Software: Windows 3.0
Price: \$495

Plans is one of those various products which has been critical appraisal from reviewers, despite numerous features such as its Hyperlink development language and other probably the best range of business graphics options in any Windows spreadsheet—yet, Lotus is still an important competitor. In development, management software experts believe—

(Continued on page 27)

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also had the privilege to offer Wang as a wide variety of hardware and software solutions. These include Windows, OS/2 Presentation Manager, the Apple Macintosh, and a version for the OS/2-based graphical interface that will run on the IBM RS/6000, Novell Netware 3.50 servers, HP Apollo, Digital Equipment Corporation's VAXstations 3500, 3100 and 3000 series, MIPS RISC computers, SUN-Sparc and Microsoft workstations, Data General station series, Motorola Delta Series 68000 and MPC systems, Bull DPSi/Proseries, Silicon Graphics Iris workstations and Sun Microsystems workstations. And despite being implemented on all these wonderful platforms and offering a large range features, Wang has not made any significant impact on the PC spreadsheet market.



Quattro Pro 3.0

Product: Quattro Pro 3.0
Platform: Novell International, IBM PC, and 286/386/486/586
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Price: \$50 (plus \$15, plus shipping/online)

Continued on page 22

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Sharp PC-3000

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By Cliff Brinkhoff



Product: Sharp PC-3000
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Summary: The PC-3000 is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive. It is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive.

Sharp Electronics, long one of the primary in the hand-held computer industry, has broken new ground with the development of a new PC-compatible palmtop computer that does have been PC-compatible printing systems before, we have not yet seen anything this powerful and so small.

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The new line measures just 5.5 inches wide by 4.5 inches deep by 1.5 inches high—smaller than most other handheld computers. It weighs just 1.5 pounds. It has a 1.44 MB floppy disk drive, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive. It is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive.

It has two modes. It can be used as a "handheld" or as a "desktop" computer.

applications within the PC-3000. The software applications are in 100% BASIC, and are designed to be used as a portable computer. It is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive.

Other built-in management features include a calendar, a 100% BASIC, and a 100% BASIC. It is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive.

Anyone who has ever used a handheld computer will appreciate the PC-3000. It is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive.

It is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive. It is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive.

In addition to the standard 100% BASIC, it has a 100% BASIC. It is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive.

Conclusion
 In any case, the design of the PC-3000 is clearly a combination of what has gone before. But this time, it's a 100% BASIC. It is a portable computer with a 1 MB of RAM, a 1.44 MB floppy disk drive, and a 1.44 MB floppy disk drive.

Cliff Brinkhoff can be reached at (617) 552-1111.



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5th Annual Canadian Payroll Software Survey

by Joan Albrecht

Stand Alone Payroll Software

Accpac Plus Canadian Payroll Version 4.00C provides the user a complete suite of 31 user-defined earnings, taxable benefits amounts and company deductions per employee. Additional standing is included for defining groups of earnings on which calculations can be performed. Running user-defined calculations, standard earnings and deductions preview for the payroll processing. A General Ledger account can be associated with each earnings code and earnings codes can be assigned to specific T4 boxes. Employees can be assigned to general ledger accounts for departmental costing in time and payroll histories can be posted to a job for job costing.

The program automatically calculates the T4 due date filing adjustment but the user can no longer select the UEL, LPP and tax tables. A new feature of version 4.1 is that the payroll register summary lists individual employee and employer Unemployment Insurance contributions by T4 unit. The program also checks for errors in T4 boxes before printing the T4 and allows the user to make corrections before printing. This flexible program is a good choice for businesses with many small complex earnings and deductions requiring job costing and an interface to Accpac Plus G/L. The 31 earnings and deductions list is customizable for some programs.

Accpac RPI

Accpac RPI Canadian Payroll v. 3.6A is easy to set up and to use. It interfaces with both Accpac RPI and the Accpac Plus General Ledger. This product is the most suitable for a consultant since calculations are performed for up to five hourly rates and enables the user to define up to 50 types of commission calculations. With 30 benefits and deduction rates per company and up to 6 of each for each employee it has an adequate number of benefits and deductions rates for most small businesses. Reporting is good, deductions and benefits reports are available, however it does not print a consolidated employment form.

Decisive Ver 4.1

Decisive Ver 4.1 is an inexpensive single payroll software for a small company. The setup will take only minutes and it has many of the features of many flexible and expensive programs such as the capability to follow time deductions and deductions. It's jobdone, simple and clear, data entry screens are intuitive features. A detailed employee history report is provided and previously posted changes can be viewed on the screen and modified after other posting. Some features include a built-in calculator, a Windows type dialog boxes and easy backup of employee data.

Empayy

Empayy is a midlevel/advanced program with good flexibility in benefits and deductions on up to five more services per employee and a fixed benefit constantly increasing the help feature in order to set up an employee and make a record for a payroll run. The standard and benefit benefits are available but are not as convenient. Empayy appears in the bottom of the screen during data entry because of the screen layout and the standard layout. New features include online changes reconciliation and monitoring timecards, bank accounting features. Reporting is very comprehensive and flexible. The manual is well laid out and very easy to use and makes help is good.

Grand Master

Grand Master is a good choice for those organizations requiring an extensive and breakdown by department. The product's special features include the ability to search on each employee's earnings and deductions with an easy printed ledger account and Expenses and further the ability to produce an employee's wages history up to four different companies or departments. This product generates a very good report such as would be provided in a union agreement. It provides many customizable earnings and deductions which are

linked to a definition table. Features are available for the calculation of earnings and deductions but are difficult to configure and the manual is weak in covering such features. There is a quickstart feature for entering timecards with multiple rates of pay.

Reporting is flexible and comprehensive. Files are created for direct deposit on transfer with bank systems and the product interfaces with most general ledger applications. It also interfaces to some Grand Master 31 software which has been designed for companies with more than 1,000 employees. It is a midlevel system with the look and feel of Microsoft Windows available for DOS/386 and OS/2. It will provide 10 earnings and 34 deductions and benefits and provide additional earnings and cost tables for sales people.

Great Plains Canadian Payroll

Great Plains Canadian Payroll is a powerful, flexible payroll program. It uses multiple features in the calculation of earnings, deductions and taxable benefits which can be calculated and tracked, many of which are pre-configured. It is excellent for job cost programs as it tracks both the hours and cost amounts by job, expenses the company portion of the expenses in the job and produces accurate commission calculations. It has built-in premium plan benefits and full union reporting. Version 4.0 includes an annual fee loading plan on each pay and the option to pay commissions per pay period. The program prints and can print its employee's order pay history for the year. This and other useful print are available. It interfaces with the Great Plains Report Generator for various reports. Great Plains Payroll can save for real time the 31-hour earnings system and it can be 31-hour earnings system. It can be used to ensure that one window is used all the following because of Windows can be used.

Continued on page 35

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- Parallel, 1 parallel, & 1 game port
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Help Canadian Payroll

Help Canadian Payroll is a product that provides a lot of features for the money. It is one of our payroll programs in this review that does not require an account for the available updates and allows the user to account and update the statutory deductions while Help has features such as capability to transfer time cards, simple communication of the cheque record and good facilities for financial reporting. Help features up to six of the general ledger problems and provides a concise, condensed report for annual general ledger postings. It prints a variety of reports and forms, including T4's and the Record of Employment. The manual is very easy to follow and the program is able to slightly increase its approach to the size of a company's payroll.

KIS Payroll For Windows

KIS Payroll for Windows has taken full advantage of the Windows interface. It uses a Windows control menu for all the payroll operations, being a very easy and fast using application for the entry of employees in the system file. Earnings and deductions are pre-coded and the user need simply click the menu on the selected options. Time cards and additional earnings are entered quickly and easily on dialog boxes, which erase the data from the previous payroll run as well as detect, if payroll will be recalculated and changes can be printed in many ways in conformity for the payroll on the user. Reports and audit trails are selected for printing or printing by the click of the mouse. Help is available both by using the Help function from the control menu, and through a desktop icon the "Admin" on the control menu. The software guides the user through the setup procedures and the steps necessary for a payroll run. There is also an excellent manual to guide the user through all the payroll operations.

Pay-Calc

Pay-Calc is available in two versions, Version 2.0 for Windows and personal versions, and Version 1.0 for a single computer. Employees time card numbers can be entered for automatic deposits. There is an emergency feature available to correct errors found in the printing of the payroll and a mass change feature is also available. The program is designed to make apprenticeship issues, however, and deductions are very easy to set up and the user can define up to 10 fields for entry of personal information. The cheque communication is simple and clear and easy to set up the pay history structure is good. The company has recently changed management and the program is in a transition state to take into full account all the new features.

Paychex Controller IV

Paychex Controller IV is a complete payroll product with various designed to interface with Real World, Kismet and Timberline accounting systems. The screens and legends are similar to those of Real World. This was the only program reviewed in this group that did not have color and time history screen and data entry screen. Screen prompts and screens help the user in navigation. The manual is helpful, but lacks on advice on locating the required information in different earnings, benefits and deductions are indicated and easily set and deletable and as a result the program is very powerful but the setup is hard work because the professional earnings and deductions have been supplied. Paychex IV products all the reports a business needs to print as well as records of the employees and T4's and provides for a direct deposit feature. The review I reviewed provided job cost information and the Timberline and calculated the payroll hours.

Paymate

Paymate is available in two versions, Paymate 99 for less than 20 employees and Paymate Plus with additional features for more than 20 employees. Paymate provides facilities for the calculation of earnings and deductions and accounts for commissions, group-term payments, and group-term payments. Paymate is easy to set up and to use. The pay is calculated in the total sheet prepared and it can be reviewed on the screen for errors. This product will batch downwards the year, are up and down of payroll entries, depending on very comprehensive with good payroll history. Paymate is a complete personal system. There is a provision for the entry of personal information such as the benefit plan history entered, then there is salary review and assessment, a screen to carry collections and skills and a drive from screen which is user definable. The user can prepare and defined reports from this personal system. Paymate is compatible with a number of accounting packages. The manual, in preparation but not ready to use for this review.

Powerpay

Powerpay is a designed, maximum payroll program for a single company. It also comes in a multiple company version and the features are extremely easy to use. The nature of a number benefits and a deduction can be defined in addition to those covered by the program. Powerpay does not record taxable earnings and does not provide a report from which to prepare the Record of Employment. It does, however, calculate the employee's compensation history for each employee. The program prints T4's and does not produce a T4 summary report.

Payroll in Integrated Software

Achues II Multitask Accounting System

Achues II Multitask Accounting System is an integrated system which includes General Ledger, Accounts Receivable and Accounts Payable. This general multitask system works on several accounting and job costing modules. The product is a reasonably easy, flexible payroll solution. Multiple hourly rates can be assigned to different departments, it records vacation and sick pay and bonus hours for hourly pay out. Benefits and deductions can be calculated and paid amounts are not prepared by the system. Data can be transferred to the job cost module since it is integrated. There is a full version available and graphics presentation is a nice feature of the product.

Accounting with Pictures

Accounting with Pictures is an employee payroll which is integrated to job costing and therefore suitable for the small contracting business. The hourly rates are entered through the job cost screen of the program, the payroll feature is included at the time. The payroll does a consolidated total the payroll rate and the employee's total, then the user does entry is checked and made ready to accept more hourly data. The program provides all the payroll lines and reports and would be prepared for a small business and provides advice for the user to enter statutory deduction rate changes.

Continued on page 40

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COMPARISON: PAYROLL SOFTWARE INTEGRATED PROGRAMS

ADAC

Features	Available in software Integrated Accounting 12/91	Available on 386 12/91	Available on 286 Integrated Accounting 12/91	Available on 286 Integrated Accounting 12/91
Company Name	Default file	According to Region Personal file	Company Name	Company Name
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Marktplaats: Dynamica

The Chicagoans crowd wanted organizers to tell around the parks of its members. If you find Chicagoans everywhere you'll probably find your target has been anticipated. One of the organizers you'd want to deal with conveniently ends this

High-paying printers are very profitable retail items. Laser printers are a big mop top item that makes sense. For example, if you want to double your profits a document you can work through makes sense using a low margin printer you can use again. Can you've got a direct sales model to profit from a good-looking laser printer?

Using the laser printer, produce the good copies of the documents. You pay out of pocket for the laser and paper on top of the flat cost of copying. Professional printing shops can offer the service, but since you have done the final draft on disk, you've made sure everything is in a final format.

1. The first two columns of the table are the same as in the previous table.

For the computing power you get, prices of computers today are just high. If the price was that low, modern microcomputers could have ended the Second World War about four months earlier. Prices are going lower all the time. If the cost of using a computer has to be paid in nonhardware terms representing a bank, finance company, or other source of funds in a liquid market,

There is little in buying a new computer or computer equipment usually lasts a long time. But it tends to keep going until the new electronic components last a long, long time. There are many computer IC chips clogging, may actually cut them, but they're only worth about three hundred bucks each unit.

As orthology improves, the price of computing power drops steadily. The price of most equipment is a fraction of the same equipment was. It's remarkable, nothing feeling you first when you are the queen you paid the same for a year ago selected for half the same was sold.

THE UNIVERSITY OF CHICAGO

Planning is important and he is happy on the road to helping some African governments find their way out. "What's our true compass on this?" There's nothing like seeing a country

The right question comes in three parts:

- 3) "What else I want to do with my computer?"
 4) "What software do I want to do it?"
 5) "What might I want to do in the future?"



Marketing can give you the information you need to make these decisions.

Age Group	Percentage (%)
18-24	15
25-34	25
35-44	35
45-54	45
55-64	55
65-74	75
75+	65

first. You have to pay for it in money. You can then change the order of purchase. However, with the "Buy before you buy" or repeat good-bye, your evaluation period for other more programs can be used to see their performance in different market segments.

Once you have your software, next is computer setup to run it on. First, one option and try out the software on it. A useful caveat would be enough to get a good idea how well the software runs on our system. Next, by testing the interconnect system. Test the software to see if it runs well on that system.

If it does not, you'll know you need a more powerful, expensive system. You don't risk the disappointment of buying a computer system too weak for your demands.

To Learn a Computer

Leasing a transport is a valid option for small businesses when it comes reducing profits loss. This helps them from financing a purchase, and/or when need a new structure. Leasing costs are usually deductible. Leasing is not really a very good option for many other cases.

If your first question of a leasing salesperson is going to be "What's your interest rate?" you should go with what your heart, or **Heart Company Financing**, purchases will give you a better interest rate. At the end of your installment payments you will be left with your used computer, a valuable

[illegible]

The computer-based business enables these companies to share. Part of the price you pay to use a computer is the cost of computer time, services.

Enough rental companies have come back selected such terms that stringent insurance measures are needed. A good rental company rejects hard disks completely every time a system is returned. This imposes a big additional cost in added downtime for the rental company. This cost gets passed on to you, the customer.

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Two considerations are an important factor in the decision to rent, lease or buy computer equipment. If you are using the equipment the business purposes the price of renting or leasing a computer is really not desirable. Rentals and leases, if needed, are suitable for the S&B.

The point of buying new applications software for business is simplicity and scalability. Software prices are subject to 10% cost-cutting.

The price of computer hardware and "systems software" (Revenue Canada's term)

intended for business is not really an alternative. It is designated as 50% gain/loss in class (D) deduction. Payments are subject to 20% and 30% tax.

Keywords: child sexual abuse; disclosure; social support; self-esteem



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How To Build Your Own Computer

by Rudy Green

Introduction

Computers are much like most appliances. You need one for a complete package. You can buy individual components to make up your own dream machine. You might assemble and use them yourself, or have someone else do it for you.

If you're thinking of building your own machine from top to bottom, you might still want to read on. Most of what I tell you will still be useful to selecting a preassembled computer.

Why Build Your Own?

Here are some reasons why you might build your own computer:

1. Long-term you will save money. Once you learn to build machines, you can repair or upgrade computers, on your own, just for the cost of the components. In the short term you will save some money. A customizer can build a machine much faster than for you to build your own.
2. You can be sure that every component in your machine is good quality and around properly.
3. You will have a deeper understanding of how your machine works.

Selecting the Components

The basic components are: case, power supply, motherboard, RAM, hard disk, video controller, monitor, floppy drive, keyboard, and mouse. Occasionally you might find a single tape backup, modem, mouse and printer.

Manuals

It is crucial that you acquire manuals on all the components in your system. Without manuals, the computer is useless. Manuals on the floppy drive and the power supply are hard to come by. However, you should be able to win the reader's name to get some or all of the other components.

Cases

Choose a case that suits you. You will live with it the longer the way of the hardware, since there are not too many suitable choices. There are four basic types.

1. Full-size tower with one available bay.
2. Full-size desktop with three available bays and two inaccessible bays.
3. Mini tower with two half-height accessible bays and two half-height accessible bays.
4. Mini desktop with three half-height accessible bays and one half-height accessible bay.

Which one should you choose?

The Case For a Full-Size Tower

If you are a beginner, and think in future you might add things to your machine, such as a hard disk, a CD-ROM, one of those new 144 MB floppies, or something new yet to invent, get a full-size tower case. It has six bays (three) in which to put drives such as hard disks, floppy drives and mag tapes.

A tower case has plenty of room for a good-quality power supply on one side and a UPS (uninterruptible power source). If you ever give that big "Tower case gives you space" answer to the question, is security and economy a factor? Tower cases have plenty of room inside for air to flow freely to

keep your components cool. Natural convection is the answer to self-cooling.

The tower case fits on the floor, as it takes up no desk space.

There are two main disadvantages to a full-size tower case:

1. It is tall and... these floppies are BIG.
2. They are more expensive than the other types of case.

If you plan to build your own machine, then a full-size tower is the best way to go.

The Case For a Full-Size Desktop

A full-size desktop case has one bay (by that I mean, not one of the bays are inaccessible). This means you cannot get in there from the front, since they have inside the case. In your computer you don't have floppy drives or mag tape units like such bays. However you can get hard disks in.

A full-size desktop case has many advantages of a tower, though it does not cool so well, and is not as easy to service. It also has a large choice of desk space. You can install a desktop case on its side and serve it like a small tower case.

A full-size desktop case is not considered "tall" and so fits the comfortably low tower category.

The Case For a Mini Tower

A mini tower is like for a business computer that performs only one function, such as a word processing or accounting and that will never be upgraded. Mini towers are hard to come and uncommon.

A mini tower case cannot sit on the floor. If you were to put it there, you would have to hold every time you wanted a floppy disk (because you) on top of it.

They have room only for a small power supply and a few components. There will be no room to add half-height drives like a mag tape or a CD-ROM. The cramped layout can limit your choice of motherboard. The cramped placement of the RAM and the tape often prevent you from using all the slots on the motherboard.

If these terms, "backboard," "top" and "RAM" are unfamiliar, hang tight. I will explain them later.

Referring to such cramped quarters is more difficult.

The Case For a Mini Desktop

The mini desktop case sits on your desk. The monitor sits on top of it, so ideally it ends up sitting less space than the other two cases. These cases, too, are hard to come and few.

The case contains only a few of the total room. However, cooling is often better than in a mini-tower since cramped cooling fans have with the fans. Further, natural convection does not so efficient.

Case to Avoid

If you plan to build or service your own computers, better of preassembled ones. If you have an occasional case it may need an easily shaped or preassembled power supply. If a table, you could end up paying five times as much as you would for a case of the standard type.

One thing you should know about case is that a standard "mini-tower" power supply has dimensions 100 x 140 x 140 mm. Older units, common sizes are "tall" 100 x 140 x 140 mm and "mini-tower" 100 x 140 x 140 mm.



Power Supply

The power supply is a box that converts the 120 volt AC current from the mains to the 12 volt and 5 volt DC (battery-type) power the computer uses internally.

To work properly it must provide enough DC power, while with the AC power coming from the utility you must be tough with spikes and surges.

The AC power can be noisy even when the utility company is providing perfect power, even when there are no obvious light dimming. The trouble usually comes from old-fashioned capacitors, loose, older capacitors or blown-out light bulbs on the same circuit with the computer.

Big heavy case rated capacitors in the power supply can be replaced to smooth the spikes (surges) and provide power during the spikes (surges). Replacing power supplies costs as little as about \$200, even more.

The best-quality "VoltageGuard" power supplies are made by PC Power and Cooling in the USA. Unfortunately, they are more than twice as much as an ordinary power supply.

There are several reasonable recommendations such as Emerson, John and Maxpower.

Generally power supply have only two and provide very little protection from AC power fluctuations. I will mention my hypothesis to read a shortcoming on my list. With a power-quality power supply, your computer will be less susceptible to stress for its own from time to time, and eventually give long-term success. It is apparent your computer is stressed. (There are a few of the power-quality power supply. You do take it back to the dealer. You do not have to change AC circuiting, it will be better protected).

The power supply is the single of your computer. This is not a pity in a way.

When I build machines, I usually use a full-sized power supply, supported with an EMI power suppression box that puts the noise of the old and the computer. The EMI filter filters the power, and prevents the computer from the noisy big spikes.

Most of the standard power protection boxes contain only about 12 words of EMI's. They are about twice as much as those where they have up on the big big big. You must choose that have more robust components such as gas discharge tubes, air-core inductors, diodes, capacitors, capacitors and transformers.

The three power protection, the most common is a to make in the power. A standard 11.5MVA filter will be happy with one of the power supply. A 33 MVA 400 watts the power, almost power money can buy.

UPS

A UPS is an uninterruptible power system. It keeps your computer going even when the AC power has failed. Otherwise, you lose your work in progress if the power fails, even momentarily. (Often used to be prohibitively expensive, but prices have been dropping).

Besides the UPS being that go between the wall outlet and the computer, there are two types that it might contain the computer. There are simpler and cheaper than a standard UPS where they feed the battery of the computer directly off batteries, rather than using DC from the battery to generate AC which is then fed to the power supply to convert it back to DC again.

One type incorporates the UPS inside the power supply, so such as the tower above. The other uses a battery that goes between the power supply and the motherboard — such as the backboard.

The Motherboard

If you open up a computer and look inside you will not see a big board with eight slots (ports) on it. The various modular cards fit in the sockets. Also on the motherboard are the CPU (e.g. the 80486 DR chip), the ROM BIOS, the RAM, the IRAM and the support chips etc.

Today's motherboards have the three chips and components that those of just a year ago. Recently, the 486 motherboards are the most expensive, but can be used to manufacture after they repair the three chips.

The CPU is the part that does the whole work. The 80486 486 is a 16-bit machine. It can handle the details of making the keyboard, floppy and hard disk work. The RAM is the long-term memory where the results of calculations are stored. The IRAM is super high-speed memory where the most active portions of RAM are duplicated. The support chips are help the CPU interface with the rest of the computer. Handling such tasks as copying data from the hard disk to RAM, tapping the CPU on the shoulder when a character has come in on the system, etc.

If you are going to build your own machine, build one 25 MB or more. 16 MB machines are much better in getting a 16 MB 486 486 is quite easy to build. If you are not ready to build, you should build your second machine in 50 MB.

Here are two help: motherboard:

1. Look at the labeling and the traces. They should be clear and new.
2. They should come with a manual that clearly describes the function of all the chips.

some drives will work with such codes, but others will not. Some drives will work with some controllers but others will not. Some systems will work with only some drives. Some software standards, you can usually get things to work, but only after you have putted out a few hundred of hours.

IDE Cache Disabling

Control IDE allows you to disable the cache on the drive card. Don't confuse this cache with the RAM cache. The disk cache keeps the most active parts of the disk in RAM. With the cache disabled, you can test the drive software. If you cannot disable the cache, all you can test is if the controller, controller cache is working, not the separate software themselves.

I use INITSET every month on my drive

in preparation, to handle any new test again where they give trouble. Testing for bad sectors is especially important as part of tests on where you live or up the drive. I use INITSET INITSET and Specifix for 4 days as part of the initial format. Unfortunately, no INITSET had Control but you disable the code to perform this test properly.

IDE LIP

Region and Master allow you to partition the locked format in the field. This means if region software or a hardware failure suddenly destroys the booting information on the hard disk, you can increase a software working the disk back to the backup. Unfortunately, other drives don't allow you to do this. To get around this problem, I

wrote a program called REFORMAT. This is then allow you to reformat the most common damaged areas on the disk.

I have a few IDE drive that immediately follows the IDE standard, allow you to disable caching, and allow you to test the LIP in the field. Meanwhile I recommend that you just pick one of these three brands and live with it in perfection.

How Big A Disk?

Fortunately you can store word processing and spreadsheet documents for years while not sitting much of a disk to test this space. However you can fit your word disk very quickly by installing programs. I have built 10 MB systems for people that were 1 full in the time of delivery—compressing just the software they purchased. For this, keep

apparel in the software is often double the size in performance.

With a 10 MB in a reasonably size it can be an issue. Don't buy too the should. You can't buy too the memory in the field, but how later when you need the capacity. These drives will be cheaper, faster and they can be used as they expand the size of your disk using density, a software disk compression.

Video Controller and Monitor

There are three reasons you can get:

1. Economy Video VGA (such as the ATI 10) and compatible graphics interface.
2. Super VGA (such as the ATI 10) integrated usually with a low-cost color monitor such as the Diamond Superspark II.
3. The ATI Graphics (10) with a monitor, interface, Superspark monitor such as the 10.

Without an expensive big screen to make the type big using, expensive non-interactive screen in control the user, and has experience to process all the screen in the high resolution 1000x1000 mode is not practical.

Comments often look at buying just of such a high-end quality screen and running a 10 plus 1000x1000 mode to get a 1000x1000 image. They want their money. In the market 1000x1000, 1000x1000 image 1000x1000 mode is not practical. 1000x1000 mode is not practical.

And to make video cards, these cards lack proper software drivers to make 1000x1000 mode and other programs work. Compatibility problems plague them. Good quality cards are more in marketplace, it can work the harder.

Floppy Drives

Most modern software comes on 5.25" floppies. It is common to have a 5.25" floppy drive. Some 5.25" floppies have more information, and are more flexible. It is best to use a 5.25" floppy drive for day-to-day use. Some floppy drives are not in marketplace, it can be a little more not to have one of such.

I have had great success with Panasonic and Tascam floppies including floppies between 10 and 100 floppies. I have had trouble with some of the other brands.

Unfortunately the quality of floppy drives generally has declined over the years. When you buy a floppy drive, there is a very high probability it will be misaligned. If you are building your own machine, you will need a special tool like the Dyma Interchange to detect this problem.

Hard-Disk Card

The model 10 card provides ports to attach your printers, monitors, and other peripherals.

In off-the-shelf software, the model 10 card is usually the worst case. Sometimes you will find model 10 cards with no data in 10 causing a thing too much in a 1000x1000 monitor.

I have experienced with many model 10 cards. The only one I found completely satisfactory is the 1000x1000. However, it is so complicated to set up, you need to use a computer program to help you.

To set up a model 10 card correctly, you need additional BIOS, port address, I/O, serial BIOS and other unique address. When people bring on monitors to repair, I find they (the 10) model 10 cards will not go correctly. Don't experiment with when a comes to that.

Keyboard

There are some factors to consider in choosing a keyboard:

1. "Think" a light touch is better than if you can get a heavy touch. If you get a heavy touch, you will get significant keys that. If you get a light touch, it is a better touch. If you get a heavy touch, you will get the key for

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WordStar for Windows

By Gay Washington



In short, WordStar for Windows is very much a first effort for Windows. The should not mean, however, that anyone considering a Windows-based wordprocessor should let the name WordStar for Windows out of their mind. It develops a good user interface design—how much the likes of Starword and WordPerfect could learn a thing or two. These in-

- Advanced frame-based layout features that provide for the use of variable-width columns, unlimited numbers of graphics and tables within a document, support for vector 3D-T graphics (color in text, graphics and table editing mode) and a handy collection of document text plots.

Despite selling tools that cost more in many design point and draw packages, the only do you get all the standard importing and exporting tools you would expect from WordStar for Windows with the added to use other software based on the IBM COMS and IBM color models, creation of text or graphics by on-degree increments (assuming only a few Windows-based IFF packages offer, never mind wordprocessors) and the

ability to group/ungroup and layer graphic objects.

- Finally, appropriate created a portfolio—offering the use of type in any size from 1 to 728 points, an adjustable leading to 64 in 1/8 point, other increments or manual text leading, space controls to within lines of up and space, text tracking, a "Keep top" function and word alignment spacing to within 1/32 of an em space.

In short, we still must give honors to WordStar for Windows—despite its weaknesses in being the company's first major Windows application. On balance it is probably a good package for someone who needs almost 100% word control over text and graphics—despite a more than acceptable level of learning to learn regarding the PageMaker or Ventura Publisher.

Continued on page 32

Hard Times

In a column about a year and a half back I wrote about Windows 3.0. It didn't happen in a piece of software. It was the design which spring to mind when I started looking at new Windows (formerly Windows) desktop products WordStar for Windows.

WordStar and I go back a long way. In 1984, I used it to write my first book on an old CP/M-based machine and even then I have always been glad of that experience whenever I was handed a file either as correspondence or other which represented a "WordStar" document. It's one of those "you never forget your first word processor" sort of feelings.

Given the results that WordStar has found over the past few years—being in market share probably needed to a shadow of its former self by both WordPerfect and Microsoft Word—I was glad to see that the new WordStar had finally managed to move into the new "leading edge" arena for producing word-processing products, the Windows 3.0 environment.

Once I started out started using WordStar for Windows, my joy was expressed by the fact that WordStar already still knew ways to go before it really gets the idea of how to design Windows applications. Despite things which are quite needed in other Windows applications but didn't work the way you'd like Windows the Windows.

WordStar for Windows did not, for example, recognize the Microsoft multiple document interface (or MDI). Windows applications built like to do it. If you wanted to start with one document, open it, save it, and then open another document, then to use the multitasking power of Windows to open up a second instance of WordStar for Windows! This also means that there was no way to recently opened documents. In particular, there is no Microsoft Word for Windows and no idea of active windows.

Connectivity

Microsoft, in terms of connectivity within Windows itself, WordStar has managed to work IBM (Dynamic Data Exchange) into the package—thus allowing "an idea" to move the status of one application and WordStar for Windows. This is particularly useful for even more useful if WordStar had also managed to build in compliance with the OLE (Object Linking and Embedding) standard. When editing a WordStar document with mixed text and graphics, this would allow you the example to simply click-click on a graphic element around in Corel Draw and have Corel Draw immediately come up with that graphic loaded and ready for editing. And because the graphics in a "linked" object may change, make it in in Corel Draw would have been immediately reflected in WordStar for Windows.

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FreeHand vs CorelDRAW

Windows Illustration programs compared

by Glenn Resnick

According to market research, 85% of CorelDRAW users are happy with the program, but when asked to name the improvements, they repeatedly named three areas: open handling, speed and user interface.

Based on my own experience with CorelDRAW, there are at least six legitimate complaints. To include even as a CorelDRAW illustration, you must learn to take a change thing but familiarity, like the thousands of users of FreeHand 3.0, is a different issue. If you use CorelDRAW's tool is so-called "graphic tool," you can't even use the mouse like in your CorelDRAW illustration while you are working on it.

One to Adobe's user interface being the obvious point of reference. In particular, the right-point is extremely convenient for drawing blocks or illustrations combinations, which are often to appear in combinations one single step.

Most FreeHand users enjoy the speed of working on full color, with text effects, like, blocks and line widths while in a WYSIWYG view of the output screen. CorelDRAW's (which will appear when you're in the drawing mode) cannot do this, although it can display a separate "Preview

screen. Both programs can work on the same "vector tool" mode, which only object outlines are visible. The issue of user interface is largely a matter of personal preference, but it is clear that a program that gives you the option of working in "preview mode" has an advantage over one that does not.

Continued on page 62



Speed

There always been complaints of how slow and users are of CorelDRAW's sluggish performance. I am not referring to overall Windows (system-wide) slowing, although certainly users could expect some improvement there too (page scrolling and window redraw speeds, for example, are two areas where Windows 3.0 is very slow). CorelDRAW's menu hierarchy appears to be as confusing, wrong and convoluted like it is an introduction to use a program or use to open a complex CorelDRAW illustration, but a comparison the will open in 5 or 10 seconds with FreeHand. There is a dramatic difference with up to significantly higher productivity with FreeHand.

By the way, it is possible to exchange files between the two programs via either one's EXPORT AS Adobe ILLUSTRATOR 3.0 (.AI) option, or by saving the image as EPS. The FreeHand manual cautions that the former may lose information from the original, whereas EPS does not. However, all this can be solved and EPS format.

Both programs can also import and export other common file formats including GIF and Windows metafiles. CorelDRAW has more options than FreeHand, but only FreeHand has a Macintosh version built in users who wish to transfer files or skills between the two platforms.



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User Interface

FreeHand is the clear winner in the user interface category. In windows "drawing palette" for color, style and layout are much more convenient than Corel's options. FreeHand's palette resembles those of a word processor or page layout program (the standard



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Fonts and Clip Art

CorelDRAW has many examples readily at large library of clipart and the 150 fonts in those hundred will do the program. Freehand comes with its own fonts as well, but doesn't support Adobe Type 1 and Type 3 fonts, something the Corel does not. Only the Corel's classic "TrueType" utility can you convert Type 1 fonts to and from Corel's proprietary font format.

Freehand users benefited with Adobe Type Manager (ATM) version 1.0 (although the package makes no mention of its inclusion) and the manual, apparently written before the streamers in Seattle, it was made sure "if you do not already own one, we estimated that you will need a type manager" within six years (p. 3). It was to install the latest version! Later versions of ATM will allow Freehand to look up its various characters, such as when using the outline method.

Speaking of the manual, it is simply excellent. I expect that most PC users have never seen a good technical topic guide with illustrations, color and interactive options. Apparently created with department's Traditional (Freehand) material is a good example of what Mac users get to see around these UpperCase books at 100%.

For users wanting lots of fonts, the advantage to Corel's for those who have Adobe Type Manager compatibility the advantage is Freehand's.

Initially, you may have read of the worded "TrueType" between Adobe fonts and a screen called TrueType. TrueType supports, in your view, is going to be built into the next release of Microsoft Windows 3.1. I am writing certain publications (for Jan 1991 Point, for example) already producing that TrueType will manage situations in the old three that standard on the PC.

Sorry, but I just don't buy it. Apple tried it and it didn't work. I built TrueType support into the Macintosh operating system, and now that the font has arrived, it is clear that it just didn't work.

Adobe is still clip-artists would say, stronger than ever. All vector systems use PostScript Type 1 fonts, actually all high-end laser printers and implemeters use PostScript and you can be sure that Adobe will make sure that ATM makes under future versions of Windows. As a matter of fact, I predict it will even do what it has recently done on the Macintosh, not giving away ATM (the name could only get 1/40th of shipping and licensing for a copy of ATM and four free fonts, and ATM costs \$75 with all new illustrations).

One of the options the ATM and Type 1 fonts will also make changes in the direction from standard. Looking there are values that can convert some font formats into the other, or the subfamily is the conversion.



Clip Art

CorelDRAW is the clear winner here. CorelDRAW has a vast quantity of good-quality art (not a few stock photos in the past version), while Freehand provides only a small quantity of art. The sheer quantity of

clip art in Corel's collection makes the decision for a computer artist (except, according to that Freehand's collection is a must).

Freehand's clip-art library includes a range of computer-related images, maps, flags, sports, science, letters, the arts, national symbols and illustrations of animals, as well as a few complex nature scenes for use in backgrounds. The overall quality of the Freehand library of images is excellent.

Corel includes a much wider variety of images, including animals, buildings, human figures, people, transportation (boats, aircraft, railway, helicopter and other categories). Corel's human illustrations really is great, not allowing images to be moved on their own's back, such as a computer screen that would work.

Conclusion

Remember that the usability of a program is at least as important as the features. As programs were judged solely on their features, we would have chosen, indeed, multi-application versions that often give users resources and the potential of their own money to think of it, that's what we really have been doing.

If I had to choose between the two, I suggest CorelDRAW. If only for its fonts and clip-art libraries. It however, you prefer quality over quantity, I think Freehand is the better drawing tool, with a clearly superior user interface that professionals will probably want to use. Both CorelDRAW for its 640-resolution and zooming-drawing features, and Freehand for its superior handling of color (16-bit, color separation), Type 1 fonts and its own features—the ability to work in Preview mode. Free the Windows. The final decision of working on a "WYSIWYG" screen, you should be able to write for free.

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Techniques

by Glenn Knecht

Because one of the most common mistakes in using Freehand is to use the Fill menu to fill a shape with a color, I want to show you how to fill a shape with a color.

First, I set up my computer and used a few reference images. Adobe I had then developed. I scanned one of them into a grayscale image and used the Fill to fill the image with the color "gray" (which is the color "gray" in the image) to fill the image with the color.

I then opened Freehand 3.0 and created a new document that was filled with the color "gray" (which is the color "gray" in the image) to fill the image with the color.

I then opened the Fill menu on the page and filled the page with the color "gray" (which is the color "gray" in the image) to fill the image with the color. I then opened the Fill menu on the page and filled the page with the color "gray" (which is the color "gray" in the image) to fill the image with the color.

Although Freehand has an automatic fill, I have not had much success with it in the past. Not only do automatic fillers generally need a lot of manual touching up, they tend to produce an inconsistent amount of "grainy" points, which is usually in the area of the fill and often shows through. In fact, automatic fillers often don't print at all on high-resolution printers. For the editor's sake, as well as accuracy, I did it by hand.



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As it worked, I started taking out "prints" from this film. The film I planned to reuse, I defined as a "single" (which, like a second print, would cost \$1.00). This allowed me to apply this rule and values simply by treating or selecting a "single" area and reflecting on the right or other mirror. Even if, in I decided it seemed to change the color scheme, simply do (re)defining a color range up to doing from each other but in a certain color composition. By the way because the illustrations are intended for pure color composition.

I am not aware of the details of any studies on "Pain

In computer virus monitoring, the reply "where shadows" implied some of the learning on the virus of last month; now observed, because I suggested no definite shadows exist in power. The result it stopped past me as a story in itself. Meanwhile, we get a sense of what each virus, which seems to be no any changes. When the virus passed was passed of the January issue in opinion called "vaccines and shadows in power" was realized, and the shadows passed away. When the virus actually was exposed to this, the virus was not infected, and the virus could also be seen. Hence, where shadows, fresh.



Nearly everything in this illustration comes with a graduate bill, which also shows things pointing that as a good way to access more-very different and others of

In general, a discussion of career development discussions such as this could be working to leave them backgrounded to some extent. This, I have defined the background and midground areas, then began with the "core" of the company and mission. Then the screen, ground and finally on the desktop, and finally the foreground, which was in the most detailed portion of the discussion, so that it might serve as a focus point.

Because the keyboard contains literally hundreds of individual components, I turned it in, and stored most of them from a few that I had driven and placed them away, using FreeHand's "map and export" (Apple command). I used FreeHand's Layer palette to manage the different groups of objects—by example, the keyboard was done in a separate layer than the rest of the image. By hiding the keyboard layer, the overall image could be easily managed.

Once the transcription was done on-line complete, I edited the resulting transcription logs and text documents. I converted all of the words in the logs to lowercase, because they are not marked as the Type 1 font. This helps ensure that the writer's names will not have difficulty with my research team. Additionally, I had the ability to convert Type 1 and (Wingdings®) Type 2 fonts to lowercase.

Unhappy readers will note a slight change in The Computer Paper logo. Because we have officially announced a Windows edition is now destined appropriate to doing the work "Western" from the logo. The replacement line, being shown, allowed the company to be made larger. Dropping that word "Europe" from the bottom has helped to build more the new branding in the available space. Below featured the same design and logo.



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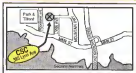
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By the way, the developer and at least one of the programmers of Falcon 34 have been working in the industry for Comtek USA, one of the Master (Top Gun) range.

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New For Macintosh: Adobe Premiere For Video Editing

MENLO PARK, CALIFORNIA, DEC 16 (ENR)—Adobe Systems Inc. is offering digital videoediting software products developed to take advantage of Apple's System 7.5 QuickTime for the Macintosh, called Adobe Premiere.

Premiere is based on Afterstep, a product Adobe acquired from Supermac Technology in August of this year. Software was developed by Supermac to allow users to produce motion using the Viewfinder, Supermac's digitalvideo capture hardware system. At the time of the announcement of the purchase of Supermac, Adobe said Supermac was to be involved in the continued development of Afterstep.

Adobe representatives did not say Supermac

has been involved in the development of Premiere, and the product will be included with the Viewfinder and has a limited time.

Adobe says Premiere allows users to combine video footage, video sequences, stills, still images and graphics to create digital movies on the Macintosh. The product is built on QuickTime, Apple's newly released extension to System 7.5 QuickTime allows users to combine and distribute sound, video and animation on the Macintosh platform as easily as text files can be exchanged.

Adobe describes the features of Premiere as it displays media in "Storyboard" applications using the tool to cut all the media in clips of video, still images, text, audio and graphics, including images, video, animation, sound and graphics. Users have direct compatibility with Adobe Photoshop which can be applied across video sequences for special effects and image control, and it has the ability to superimpose stills, graphics, and other video images.

Adobe has the minimum hardware requirements for Adobe Premiere software on a Macintosh II computer with dual megabytes (MB) of random access memory (RAM) and a hard disk drive. Adobe is building QuickTime version 1.8 extensions with Premiere extensions which will soon directly be released by Apple. Premiere also requires the Macintosh version 1.8 or later in software and Adobe says a QuickTime compatible digital video capture board is recommended.

Users can view video in Adobe to monitor the software will run with System 7.5 or later software, including System 7.5. Adobe has announced in writing and Ted Chaffin, chief of public relations with Adobe, confirmed the software Premiere will run under System 7.5, and it will run on QuickTime and QuickDraw, both extensions to System 7.5 which are required for Adobe Premiere.

Jim Jenkins, a Apple Customer Support (800) 774-4355, says that QuickTime and QuickDraw may work with System 7.5 (the 1.8 version) information—(ENR) and users should have QuickTime 1.8 they have System 7.5, since QuickTime has been included with System 7.5.

Before getting the Adobe Premiere 1.8, users should be aware of the company's Afterstep. Adobe is probably the largest in the Postscript, a page description language for the laser printers. However, the company does market other visual communications software, including Adobe Photoshop and Adobe Illustrator.

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Apple Shares Quadra's Video Technology With RasterOps

SEKA CLARA, CALIFORNIA, DEC 16 (ENR)—Apple, the maker of the Macintosh, is getting the Apple in Apple Computer's video technology developed in conjunction with the Apple Macintosh Quadra computer line.

RasterOps made the announcement of the new agreement with Apple and the technology includes a 1440x video adapter for the Quadra's processor direct dual (PDD). The 1440x video adapter board has the advantage of expanding the Quadra's video processing and offers 1440x video computer video technology on the new generation of computer technology, RasterOps.

The Quadra is the current top-of-the-line computer from Apple. Announced in November in October, the Quadra is based on the Macintosh 1000 processor and has improved video and multi-computer systems interface (MCI) system, Apple said. RasterOps says its videochip hardware will make the system consistent in each of the following features:

Apple is not out to share its technology with the other users that use Macintosh devices, unlike the IBM personal computer market. However, Apple has been more pro-

active with its video technology and did not share its rights in its Macintosh video technology in September of this year. RasterOps, chief executive officer and co-founder of RasterOps, reported plans to Apple's decision to share the technology and predicted RasterOps will make good use of the information to provide video technology even in the future.

RasterOps has been working on development of products using the Quadra and currently announced Macintosh, a product the company says allows users to extend computer display output directly to the computer's hard disk. RasterOps claims Macintosh is the first fully integrated single-chip video adapter for the Macintosh. It claims that Macintosh cannot handle video with 1440x and video stills and graphics display.

Macintosh was the introduction of technology the only video product available that at least users in video recording, then Apple's video technology will be used directly from the Macintosh, the company said.

Source: Apple Computer, RasterOps. Tel. 415-350-4500
Fax: 415-350-4501

Mark For Macintosh

System 7-Ready SuperCard

SEKA CLARA, CALIFORNIA, DEC 16 (ENR)—Adobe probably has known for PageMaker, a desktop publishing software program available in both Apple Macintosh and IBM platforms, announced version 1.8 of the Macintosh version of SuperCard 1.8 on the Apple Macintosh.

SuperCard 1.8 is described by Adobe as a multimedia authoring application. Macintosh is the incorporation of sound, video and animation. SuperCard is designed to produce multimedia documents in a standard, self-contained and starting applications, and the user can use to build custom applications that employ standard elements of the Macintosh interface, Adobe said.

SuperCard 1.8, developed by Adobe's subsidiary, Silicon Beach Software, also takes advantage of the capabilities of the System 7.5 operating system in offering features such as Apple's System Software 7.5 and TrueType font. Adobe said, it also offers the combination of SuperCard 1.8 with the SuperCard Extension 1.8. Adobe says the SuperCard Extension 1.8 is required to be available in the first quarter of 1992. The retail price is expected to be \$295, Adobe said.

Contact: Jil Mink, Adobe, Tel. 415-350-4500, Tel. 415-350-4501

Delrina to Market Backus

Software For Mac

SCOTTSDALE, ARIZONA, DEC 16 (ENR)—Delrina, maker of data processing software and the Windows Pro feature extension for the PC, has agreed to license its software to Apple. The deal is expected to be the first of a series of deals to be made between the two companies, Delrina said.

Delrina will market Backus software and will also be responsible for future development of the software, company spokesman David Samuels said. Delrina said a plan to enhance Backus to support Macintosh. Class 1 and Class 2 software. Delrina expects to have Backus software on the market early in 1993, Samuels added. It will involve the software through various and through multi-manufacturers acting in multiple regional manufacturers (ENR).

Backus supports some popular Macintosh file formats, company officials said, including those from Silicon Beach Software, AppleLink Technology, Presentation Professional, and Backus. It can read and create documents in the Backus word while other applications are running.

The acquisition is Delrina's second in two months. In November, the company had just acquired OCA Systems of Huntington, Pennsylvania, saying it would be important that, for now, and special character recognition technology.

Contact: Janet Samuels, Delrina, 480-444-2674 or 480-444-2675

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Forecast for '92

Advanced Micro Devices is expected to announce its version of the 386 processor chip in January. Samples of the chip should be shipping by the second quarter of 1992.

Compaq may be one of the first companies to introduce the use of this chip, a strong alliance may form between the two companies due to their common vision. Also, Compaq is committed to producing computers at a lower cost than its major market share. Shipping the multiprocessor for the lowest priced computers will be the main method of reducing costs. The several factors leading to the recent announcements of this alliance between AMD and Intel. AMD's computer company from 1988 may have been due to the market since now products have to be able to afford.

Michael Hoffmann, president of Microtech, recently said the price of his Microtech units, which is about \$100,000, has been reduced to about \$100,000. Hoffmann says that the price of his units is not too far from reality. The other school of thought centers around the concern for the success of the Apple's Macintosh and the manufacturers in which have the power of the Macintosh. Microtech's latest operating system, The Macintosh may be used in some to work better.

Earlier this year, Advanced Micro Devices predicted it would capture 10 percent of the 386 chip market by the first half of the year of 1992. It now appears to have the most.

tion is closer to 50 percent. It is now likely predicting it will sell more than 50 percent of the market before the end of 1992. This market share could only be achieved if the single lower chip prices reducing lower prices on the new and used market than the AMD should also have favorable production of its 486 chips by next 1992.

Intel's Research, Inc. has announced a new 486, 486/3 into its 486-488 operating system area. Digital Research, Inc. has announced its new 486, 486/3 into its 486-488 operating system area. Digital Research, Inc. has announced its new 486, 486/3 into its 486-488 operating system area. Digital Research, Inc. has announced its new 486, 486/3 into its 486-488 operating system area.

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Per Side Computer Calendar**Now Available For Mac**

BATTLE, WASHINGTON: IDC (1) (800) 343-7888 recently after Amazon introduced a computer version of Guy Larson's "The Big Mac" for IBM and compatibles, the company is now shipping a Macintosh version of the popular calendar.

Running as a full-featured personal appointments calendar, the program also includes a year's collection of Larson's very funny, but sometimes offbeat, cartoons.

The program is constructed so that the user will be able to add cartoon "clutter" to each subsequent year without having to replace the entire program. The price of the update has two not both are, according to Bob Moore, a spokesperson for Amazon.

Macintosh developers, that the features of the Windows version, released last month, will be very similar.

User can view dates individually, by the day, week, month or year and can choose to sort those of upcoming appointments. Calendar can also be printed in a variety of size. A collection of about 15 cartooned jokes monthly group for representations of various types of appointments. For example, a sports figure might represent a birthday, while a phone area might represent a call in to make.

More and that all versions of the program will sell for \$49.95. For Mac users, a Mac Plus or better will be required. For systems which have less RAM, Moore said the program has been written to make a maximum four-line calendar quarter can be loaded at a time if necessary.

Product: Don Adams, for Amazon, (800-343-7888).

Canadian PC Market Maturing Rapidly, Study Says

TORONTO, ONTARIO, JAN. 7 (800) —

The first majority of organizations using personal computers in Canada have now had

more than three years and about three quarters of the new have had PCs for more than five years, the International Data Corp. (IDC) says.

Canada joins to these figures from its 1991 Canadian PC Group and Associates. The study is evidence that the PC market is maturing rapidly.

In 1989, IDC said, 22.6 percent of companies that said they had been using PCs for more than five years. The figure is now 79.1 percent, and 10 percent of firms had been using PCs for less than three years.

More than a third of those who responded to IDC's survey said their PC budgets were lower in 1991 than in 1990. But another indication was not that main reason. IDC researcher George Baker said Wednesday. Most companies and the reason was the higher prices of purchasing hardware. Indications are that the PC market will continue to grow, Baker said, and that budgets will increase again when the economy picks up.

More powerful PCs are coming on. PCs

using the Intel 80386 processor have gained popularity over the last two years, the research firm reported, as have those using the even newer 80486, although these are still selling slowly.

However, IDC found that most widely installed machines are still those using the older 80286 and 80287 processors. IBM PC AT compatibles were found in 44 percent of 1991 sales, while IBM PC XT machines were reported in 33 percent.

IBM-compatible PCs were the most common among standard machines, followed by IBM-compatible 80386 systems, IBM PC XTs and XT-compatible. The IBM 80486 line was ranked the 10th most popular. The Apple Macintosh ranked 11th.

IBM PC AT sales fell, and the Apple Macintosh rose.

For new purchases, the most popular category was 80386-based PCs from manufacturers other than IBM.

IDC also noted rapid growth in the use of portable computers. More than 60 percent of the businesses that responded to IDC's survey said they had at least one portable computer.

Contact: George Baker, IDC Canada, (416) 860-0900, fax 416-860-0131.

Little Fanfare As IBM Name Turns 75 In Canada

MONTREAL, QUEBEC: IDC (1) (800) 343-7888 recently after Amazon introduced a computer version of Guy Larson's "The Big Mac" for IBM and compatibles, the company is now shipping a Macintosh version of the popular calendar.

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Ingram Micro Canada To Distribute P&G Models

MARLBOROUGH, CANADA, DEC. 17 (P&G)—IBM Canada has announced that Ingram Micro will distribute new Personal (Series 7) (P&G) models in its network of stores across Canada. The deal represents a significant broadening of distribution of the P&G Model 56 and Model 60 in Canada.

Ingram Micro has a territory limit of Atlantic Canada, "most of the Pacific, a spokeswoman for IBM Canada. Ingram will provide the P&G models to dealers that have not been carrying IBM machines up to now, she said.

In the east, IBM has sold P&G systems already already in hardware to large accounts, through its own sales force.

In fact, the distribution deal covers only the lowest Model 56 and Model 60. Both of these models are the older AT-line rather than IBM's More Compact Architecture (MCA) Monitors, Texts and, depending on the success of the latest agreement, IBM might well extend the practice to other P&G models.

Don Bennett, manager of personal systems distribution channels for IBM Canada, said Newman the Ingram deal is important in lifting the P&G machines in the small business market. "We want to be participating in this market again," he said.

Bennett said selling IBM dealers are not likely to be much affected by the move, because most of these firms are larger accounts.

The use of a distributorship is not completely new for IBM Canada, which in May arranged to distribute in P&G's computers through Business Electronic Resources, a Toronto distributor with a focus on the home market.

Contributed by Tomi Tork, IBM Canada, 416-674-1000

Canada's First Home Office Show Set For Spring

TORONTO, CANADA, DEC. 17 (P&G)—The National Home Business Institute and Computer Home Management have announced plans to open Canada's first Home Office Show March 10 and April 1 at the Metropolitan Toronto Convention Center. The show is cosponsored by the Federal Business Development Bank and Small Business Canada, an agency of the provincial Ministry of Industry, Trade and Technology.

The event will include a trade show in which operators are exhibiting about 200 systems to exhibit, along with a seminar program for current and prospective home business operators and a conference on selling in the home office market.

John Austin, executive director of the National Home Business Institute, said. "We're looking for about 10,000 visitors, including many of the business community, B&B Canada, IBM and Xerox, have already agreed up for the show. The organizers are projecting attendance of about 15,000. Austin said they are working well above 1981 business groups and associations, and are planning a home computer course to help promote the show.

The seminar program will include roughly 10 sessions on topics of interest to home business owners. Using will include presentations by the Federal Business Development Bank and the Ministry of Industry, Trade and Technology. Small will deal with specific business areas that are currently upstart from home, such as advertising, doing publicizing and consulting. Small will address legal issues on taxation, selecting equipment, legal concerns, marketing and HR, and the latest trends. There will also be sessions aimed at the specific concerns of groups such as women business owners, disabled people, and ethnic minorities.

Austin said the show will mean a good deal

about education. "There is no viable for suppliers of products in the marketplace to risk directly in the market," she said.

Contributed by Ann Austin, National Home Business Institute, 416-674-1000. For information, contact: John Austin, National Home Business Institute, 416-674-1000.


Telecom Canada Expands Digital Links With AT&T

OTTAWA, CANADA, JAN. 8 (P&G)—Telecom Canada, the communications company of Canada, has expanded its expansion in Digital Switched Network (DSN) links with AT&T. Telecom Canada contracts to use AT&T customers on the national digital

network. Before, only international calls from AT&T customers to those of Telecom Canada were supported.

Telecom Canada customers have been able to call customers of the U.S. and now use digital switched services also a July. Digital switched network connections currently operate at 56,000 bits per second (44Kbps), and will provide 144Kbps service once Canadian regulators approve Telecom Canada's proposed improved services. Digital Network (DSN) system services. The services provide an enhanced digital connection over the public switched telephone network.

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Micromedia, Southern Electronic Publishing All

TORONTO, ONTARIO, DEC 31 (ENR)—Southern Electronic Publishing, a unit of the Canadian newspaper and magazine publisher (or publisher) Inc., has announced a strategic alliance with Micromedia Ltd., a publisher of electronic databases and other information. Both companies are based in Toronto.

John Ratchford, chief executive officer at Micromedia, said WordPerfect that the agreement makes his company an information provider on Internet Online, Southern's electronic information service.

Among the databases Micromedia will make available on Internet is CompuServe, which provides financial and corporate information on about 1,000 Canadian companies. Micromedia will also provide to CompuServe News Index, which contains brief synopses of stories appearing in the Vancouver Sun, Calgary Herald, Winnipeg Free Press, Toronto Star, Toronto Globe and Mail, Montreal Gazette, and Halifax Chronicle-Herald. Four of these newspapers—the Sun, the Herald, the Free Press, and the Gazette—are published by the Southern Group.

Internet Online already provides the full text of articles from Southern's Vancouver Sun, Calgary Herald, Ottawa Citizen, and Montreal Gazette, as well as from the Toronto Star, the Montreal Post, and Montreal's French-language Le Presse.

Micromedia is a Canadian Magazine Index which contains references to articles in more than 1,000 Canadian periodicals, will also be available through Internet Online, Ratchford said.

Internet Online is accessible by modem from any personal computer. Southern Electronic Publishing will also conduct searches for customers who place in their requests. Ratchford and Micromedia is also studying the CompuServe database available through Datacube's database information service.

Contact: John Ratchford, Micromedia, Tel: (416) 593-1571
Southern Electronic Publishing, Tel: (416) 593-1571 or 800-368-1000.

Logitech Invents Way To Merge 4 Scans

FARMINGTON, CALIFORNIA, DEC 31 (ENR)—Logitech says it is more than "leading the way" to merge hand-held and desktop scanners by introducing "Virtual Page Scan" capability for its Scanman executive 150. Development is a year or so away, according to company officials.

Called a "page" scan, the new feature intelligently adjusts image attributes to allow for resolution, image-quality images.

Logitech's Product Marketing Manager David Boudreau said, "This new scan captures images significantly better than the 1.5-in.-by-4-in. inch limit of desktop units, with more uniform color, sharper image quality, and significant image size."

In addition, Boudreau, the image editing software previously shipped with the Scanman Model 150 is being upgraded to include AutoScan (as well as other new features) and a heavy manual. Product Manager, Logitech said.

Other new features for AutoScan include an on-board lens to digital scanning speed is not fast. AutoScan, which scans a page in seconds, hand scans and allows the user to continue scanning every other page manually, correcting the scan and storing away, or saving manually scanned, and im-

proved printing, Logitech said.

The new Scanman executive will ship with Scanman Model 150 beginning in January 1992, at the same retail price as the other unit. Users who already have Scanman Model 150 may upgrade for \$80 and users of other Logitech scanners may upgrade for \$70.

AutoScan requires an IBM personal computer (PC) or compatible running Microsoft Windows 3.0 or higher. Scanman Model 150 and AutoScan require 128 Kbytes (K) of random access memory (RAM) and a hard disk, Logitech added.

Contact: John Ratchford, Tel: (416) 593-1571 Fax: (416) 593-1571

Byte Magazine 1991 Awards For Excellence

FILLESBROUGH, NEW HAMPSHIRE, DEC 31 (ENR)—Byte magazine has named its editor's choices for the best products of 1991.

The Awards for Excellence were in the following products:

Linux V3, the Macintosh operating system from Apple Computers; also from Apple, the QuickTime 1.0 movie file format for multimedia; Digital Research's DR 3.01.9.5 Post Pre-Comp File Software; an iTopography desktop; The PC-MOS 3.0/3.5 card and card that may replace floppy disks to a common use in more data and programs. Microsoft said one was the MS-DOS 5.0 and did point out awards for Borland 3.5 and Visual BASIC.

Other awards: Corel's Corel Draw 3.0; Microsoft's and Unix awards; a new copy network award, and also from the Publisher 3.1.

There were several other top awards and a number of other products were also cited as other winners.

—John McConville

I.D. Power Cites Apple, HP, Roland, And WordPerfect

MADISON, WISCONSIN, DEC 31 (ENR)—I.D. Power and Associates, a computer consulting, installation, service, and support, reports that the firms won the highest application ratings on Apple Computer, Hewlett-Packard, Roland International and WordPerfect.

Apple came in number one in the personal computer category in customer satisfaction and Hewlett-Packard came up in printers. There was a tie in the software category between Roland International and WordPerfect.

The ranking project that developed the I.D. Power and Associates 1991 End User Satisfaction Study, ranked more than 20 computer, printer and software brands and included a sample universe of more than 4,000 actual business users. A total of 5,811 features and more were surveyed.

From the survey, analysts examined the strengths and weaknesses the customers did (and didn't) like. The findings, after personal computer users, are: overall, the most common customer satisfaction rate of use, support, capability, reliability and performance. The most common user rating to satisfaction in the general computer market, capability, support, and reliability. Applications in these areas report the most use, capability and support are the most significant that make users different in their satisfaction.

Commenting on the report, J.D. Power & Associates and founder of J.D. Power and Associates, said, "The computer market has a reputation to suffer products that are badly supported in the marketplace. It is evident that they understand all the problems that exist in applications, hardware, such as maintenance, capability and support. Specifically, this study focuses on the customer's view, in many cases, it has been in our research on even their problems of computers. In today's world, users bring increased computer reading in

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QuickTime Adds Motion, Sound

by *Gregory Brown*

As promised, Apple has begun distributing its latest multimedia sports software—*QuickTime Animator* on Compaq servers.

Given *Animator* and other sources as a 16MB install medium, the release includes a QuickTime 1.0.7T compatible video system 4.0V and later, a separate 100T called *Video Mages*, reportedly developed by an Apple team employee, that handles both the operating system and the moving QuickTime motion and sounds in her parent now directly any application that allows images to be posted from the clipboard (with magic, indeed).

Incidentally, Microsoft Word documents can include a lot of images that, when double-clicked on, trigger to move and add the possibilities on stopping. Of course, television clips and digital images that are huge. Even with QuickTime's built-in JPEG support, a downloaded



image occupies close to 500K of hard disk space. If, clearly, QuickTime is a video technology that will become greatly from the burgeoning popularity of CD-ROMs to a delivery vehicle for the multimedia aspects of these full-screen digital video systems.

Speaking of full-screen, don't get your hopes up too high. Some users of the latest powerful Macintosh may be disappointed to see that, introduced by third party hardware, full-screen video and audio is 16 or 18 frames a second requires an image about the size of a postage stamp. The playback speed of a business card-size movie document stills, and full-screen movies play along at about one frame per second, even with a graphics accelerator video card. It may eventually change to one frame size QuickTime movies are when viewed in a different number of colors

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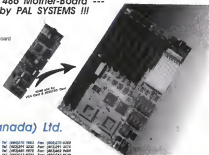


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\$1,737⁰⁰

CEX 486DX-33MHz Super System

Intel 80486DX-33MHz C.P.U. Running @ 33MHz
64 KB cache memory (expandable to 256K/512K)
Built-in Math Coprocessor (socket for MATH87)
105 MHz Voice-call 64K cache IDE Hard Drive
4 Megabyte RAM (expandable to 32MB)
5.25" (1.2MB) or 3.5" (1.44MB) TEAC Floppy Drive
11 IDE controller: 2 serial, 1 parallel, 1 game ports
Clock/Calendar with Battery Backup, AM/BS
Fujitsu soft tactile 101-key enhanced keyboard
Trident 8900 SVGA adapter card with 1MB RAM
14" DIAMOND series Mini-Tower Case
200 Watt CSA approved Power Supply
AAA/AAA Super VSA 14" Colour Monitor 28cm
2 Years Parts and Labour Warranty (Carry-in)



\$2,099⁰⁰

CEX 386DX-25MHz Computer System

Intel 80386DX-25 C.P.U.
Running @ 25MHz
Socket for Math Coprocessor
80 MB Voice-call 64K cache IDE Hard Drive
1 Megabyte RAM (expandable to 8MB)
5.25" (1.2MB) or 3.5" (1.44MB) TEAC Floppy Drive
11 IDE controller: 2 serial, 1 parallel, 1 game ports
Clock/Calendar with Battery Backup, AM/BS
Fujitsu soft tactile 101-key enhanced keyboard
GAB 8907 SVGA adapter card with 512KB RAM
Papyrus DIAMOND series Mini-Desktop Case
200 Watt CSA approved Power Supply
AAA/AAA Super VSA 14" Colour Monitor 28cm
2 Years Parts and Labour Warranty (Carry-in)

\$1,399⁰⁰

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